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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/031,225	06/05/2002	Brian P. McDonald	ACD2713	6198
7590 11/01/2004			EXAMINER	
Ralph J Mancini Akzo Nobel Inc Intellectual Property Department 7 Livingstone Avenue Dobbs Ferry, NY 10522-3408			QAZI, SABIHA NAIM	
			ART UNIT	PAPER NUMBER
			1616	

DATE MAILED: 11/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/031,225

Applicant(s)

MCDONALD ET AL.

Examiner

Sabiha Qazi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Final Rejection

Amendments are entered. Claims 10-26 are pending, and are rejected. No claim is allowed.

This application is a national stage entry of PCT/EP00/06234, which has an international filing date on July 3, 2000.

Applicants' arguments were fully considered, but were not found persuasive.

The Applicants' strongest argument is that the organic nitrogen containing compounds disclosed in the present invention (i.e., the groups listed in present claim 10) are NOT part of the selected group of alkoxyated amines represented by the general formula shown at col. 3, lines 1-56. Examiner respectfully disagrees.

The Specification contains only two examples, which are drawn to a synergistic composition and use of alkoxyated amines, WHICH HAS NOT BEEN CLAIMED. The whole argument from the Applicant's Attorney is that the prior art teaches alkoxyated amines whereas the present claims don't claim alkoxyated amines. It is unclear what the Applicant's invention is.

On page 9 of the specification it says, "The results in Table 1 indicate the synergistic effect of the combination of choline chloride, i.e. an organic nitrogen-containing compound, a mixture of calcium nitrate and urea ammonium nitrate, i.e. inorganic nitrate rest-breaking agents, and an alkoxyated amine, i.e. a surfactant, and the improvement over the rest-breaking compositions DNOC/oil and hydrogen cyanamide-oil of the prior art."

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How is the present invention different from the prior art when the present invention uses alkoxyated amines in the Examples?

The alkoxyated amines argument does not even apply in claims 18-26 since the organic nitrogen-containing compound having a "molecular weight" of 60 to 300 are claimed. This includes alkoxyated amines, as well as many, many other amines.

35 USC § 112 First Paragraph

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 10-26 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The Specification contains only two examples, which are drawn to a synergistic composition and use of alkoxyated amines, WHICH HAS NOT BEEN CLAIMED. The whole argument from the Applicant's Attorney is that the prior art teaches alkoxyated amines whereas the present claims don't claim alkoxyated amines. It is unclear what the Applicant's invention is.

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On page 9 of the specification it says, "The results in Table 1 indicate the synergistic effect of the combination of choline chloride, i.e. an organic nitrogen-containing compound, a mixture of calcium nitrate and urea ammonium nitrate, i.e. inorganic nitrate rest-breaking agents, and an **alkoxylated amine**, i.e. a surfactant, and the improvement over the rest-breaking compositions DNOC/oil and hydrogen cyanamide-oil of the prior art." How is the present invention different from the prior art when the present invention uses alkoxylated amines in the Examples?

The example in Table 1 represents synergism, which is not claimed. The claimed invention is not limited to synergism. Furthermore, there is no example of the invention as presently claimed. One skilled in the art would have to do undue experimentation to make and/or use the invention for breaking of rest in deciduous fruit species.

35 USC § 112 Second Paragraph

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 11-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 12 and 13 are improperly dependent on claim 11 because there is no choline salt in claim 11.

Double Patenting: Non-Statutory

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 10-26 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-11 of NORTH et al¹ and claims 1-11 of PARR et al². Although the conflicting claims are not identical, they are not patentably distinct from each other because a composition useful for the breaking of rest in deciduous fruit species

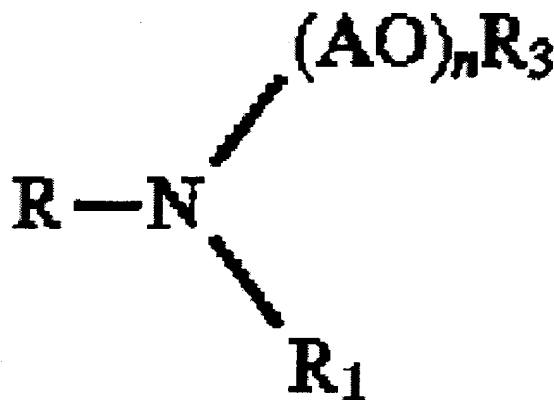
¹ United States Patent Number 5693591

² United States Patent Number 5885932

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comprising an organic nitrogen-containing compound selected from the group consisting of ethylenediamine, ethylenediamines, etc.

Claims are obvious when, in Formula as in lines 19-24 in col. 12 of NORTH et al. and in lines 1-5 of col. 10 in PARR et al (the Formula is cited below), where A can be an alkylene group, n can be 1-50, R is selected from straight or branched chain alkyl or alkenyl groups, and R₃ is hydrogen. The compounds of the present invention differ from the reference in having a 2-hydroxybutyl versus 2-methoxybutyl, where one hydrogen is replaced by a methyl group, which is considered a homologue.



Formula as in claim 1

The prior art of record is drawn to structurally similar compounds used in the composition and for a method of breaking the rest in deciduous fruit species, which differ, from the compounds embraced by the instant claims in that they are homologues. The skilled artisan would have been motivated to modify the teaching of the prior art to prepare homologues

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because it is recognized in the art that homologues are structurally similar and would be expected to possess similar properties. *Ex parte Henze* (POBA 1948) 83 USPQ 167.

Compounds that differ only by the presence of an extra methyl group are homologues. Homologues are of such close structural similarity that the disclosure of a compound renders prima facie obvious its homologue.

The homologue is expected to be prepared by the same method and to have the same properties. This expectation is then deemed the motivation for preparing homologues. See *In re Wood* 199 USPQ 137; *In re Hoke* 195 USPQ 148; *In re Lohr* 137 USPQ 548; *In re Magerlein* 202 USPQ 473; *In re Wiechert* 152 USPQ 249; *Ex parte Henkel* 130 USPQ 474; *In re Fauque* 121 USPQ 425; *In re Druey* 138 USPQ 39.

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131.

35 USC § 102(e)

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

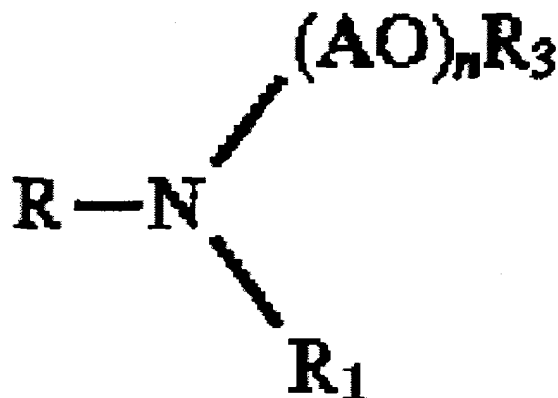
A person shall be entitled to a patent unless –

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(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 10-26 are rejected under 35 U.S.C. 102(e) as being anticipated by NORTH et al and PARR et al. Claims are obvious when, in Formula as in lines 19-24 in col. 12 of NORTH et al. and in lines 1-5 of col. 10 in PARR et al (the Formula is cited below), where A can be an alkylene group, n can be 1-50, R is selected from straight or branched chain alkyl or alkenyl groups, and R₃ is hydrogen. The compounds of the present invention differ from the reference in having a 2-hydroxybutyl versus 2-methoxybutyl, where one hydrogen is replaced by a methyl group, which is considered a homologue.



Formula as in claim 1

The prior art of record is drawn to structurally similar compounds used in the composition and for a method of breaking the rest in deciduous fruit species, which differ, from the compounds embraced by the instant claims in that they are homologues. The skilled artisan would have been motivated to modify the teaching of the prior art to prepare homologues because it is recognized in the art that homologues are structurally similar and would be expected to possess similar properties. *Ex parte Henze* (POBA 1948) 83 USPQ 167.

Compounds that differ only by the presence of an extra methyl group are homologues. Homologues are of such close structural similarity that the disclosure of a compound renders prima facie obvious its homologue.

The homologue is expected to be prepared by the same method and to have the same properties. This expectation is then deemed the motivation for preparing homologues. See *In re Wood* 199 USPQ 137; *In re Hoke* 195 USPQ 148; *In re Lohr* 137 USPQ 548; *In re Magerlein* 202 USPQ 473; *In re Wiechert* 152 USPQ 249; *Ex parte Henkel* 130 USPQ 474; *In re Fauque*

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121 USPQ 425; *In re Druey* 138 USPQ 39.

Claims 18-23 do not specifically claim alkoxylated amines and have a broader “organic nitrogen-containing compound having a molecular weight of 60 to 300,” which can be any amine.

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131.

35 USC § 103(a)

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 10-26 stand rejected under 35 U.S.C. 103(a) as being unpatentable over NORTH et al and PARR et al. See both documents in their entirety, especially the abstracts, examples, and all claims.

Presently claimed invention is drawn to a composition useful for the breaking of rest in deciduous fruit species comprising an organic nitrogen-containing compound selected from the group consisting of ethylenediamine, ethylenediamines, etc.

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NORTH et al discloses activity-promoting additives for rest-breaking agents. The activity promoting additives enhance the activity of rest-breaking agents thereby leading to improvements in the yields and quality of fruit from deciduous fruit trees.

PARR et al and NORTH et al are very much alike; the only difference is that US '932 teaches activity leading to improvements in the yields and quality of fruit from *non*-deciduous fruit trees.

Reasons for the obviousness rejection is same as cited above in our previous rejections therefore, are not repeated in this section.

Since Applicant's Claim 10 is very similar to NORTH et al.'s Claim 10, one who is familiar with the art would be motivated to prepare a rest-breaking composition to improve the yields and quality of fruit from deciduous fruit trees. The motivation to combine the teachings of the prior art *Supra* would have been obvious at the time of invention. Addition of a surfactant in the composition is conventional and is considered to be obvious to one skilled and familiar with the art. All the components are taught by the prior art.

In absence of any criticality and/or unexpected results presently claimed invention is considered obvious over the prior art of record.

In the light of the forgoing discussion, the Examiner's ultimate legal conclusion is that the subject matter defined by the instant claims would have been obvious within the meaning of 35 U.S.C. 103(a).

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Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

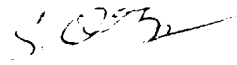
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sabiha Qazi whose telephone number is (571) 272-0622. The examiner can normally be reached on any business day.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Kunz can be reached on (571) 272-0887. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


SABIHA QAZI, PH.D
PRIMARY EXAMINER

Sunday, October 24, 2004